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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 2-8, 10-12, 14-18, 20-22, 24-28 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rochberger (US PAT 6272107) in view of Schwengler (US PAT 6678259) and DeKoning et al. (US PAT 6457098, hereinafter DeKoning).

Regarding claim 1, Rochberger teaches a method comprising: establishing a second communication path (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, path going through elements 24 and 26) that is independent of a first communication path (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, path going through elements 16 and 18) that couples at least two end points via at least a first broadband (i.e. ATM) network (column

10, lines 14-20, the principle of the method of the first embodiment is that two call paths are set up between the source and destination nodes: a primary call path and a redundant, i.e., secondary, call path. The two call paths are, however, associated with each other in the switching tables of the two end nodes, i.e., the source and destination nodes), wherein each network connection on first communication path (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, path going through elements 16 and 18) between at least two end points (column 10 line 20, two end nodes, i.e., the source and destination nodes), has a corresponding redundant network connection (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, path going through elements 24 and 26) on second communication path, and wherein first and second communication paths are of different types (column 10 lines 14-20, different types are satisfied by one path being primary and the other being redundant); and transferring information that would be normally transferred over first communication path between at least two endpoints via established second communication path over corresponding redundant network connection (column 12 lines 10-15, at this point, data flows from the source user to the destination user over the redundant path (which is now the active path). Both the source and destination users are unaware that a break occurred in the active path aside from a short interruption in the flow of data cells).

Rochberger does not explicitly teach, primary and secondary path use different communication protocol and are being different communication type.

Schwengler in the same or similar field of endeavor teaches primary and secondary path use different communication protocol and are being different communication type (Abstract, column 3 lines 53-55, the redundant or secondary

communication path may be a different line of sight path to the same or a different transmitter, or may be a lower frequency communication path. It is to be appreciated that this embodiment of the present invention, utilizing a primary and a secondary transmitter, allows a lower frequency non-line of sight link to be used as a backup for a primary communication path that does require line of sight).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate in Rochberger's system/method the steps of primary and secondary path use different communication protocol and are being different communication type as suggested by Schwengler. The motivation is that (as suggested by Schwengler, column 4 lines 42-47) by using different communication types for primary and backup paths, network can be made to be more reliable in case of failure in the primary path; thus overcome the problems associated with primary path failure by utilizing the appropriate different communication path to get around the fault. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Rochberger and Schwengler do not explicitly teach both of a first and a second communication paths are established through same plurality of network nodes.

DeKoning in the similar field of endeavor related to data communication teaches both of a first and a second communication paths are established through same plurality of network nodes (Figure 3, column 11 lines 4-21).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate in Rochberger and Schwengler's system/method the

steps of both of a first and a second communication paths are established through same plurality of network nodes as suggested by DeKoning. The motivation is that (as suggested by DeKoning, column 21 lines 53-64) such method provides enhanced redundancy. Known work (both of a first and a second communication paths are established through same plurality of network nodes) in one field of endeavor (DeKoning prior art) may prompt variations of it for use in either the same field or a different one (Rochberger and Schwengler prior art) based on design incentives (enhanced redundancy) or other market forces/market place incentives if the variations are predictable (multiple connection for enhanced redundancy is predictable) to one of ordinary skill in the art.

In regards to claim 2, Rochberger teaches provisioning said established second communication path for handling communication functions (column 7 lines 12-32).

Regarding claim 4, Rochberger teaches temporarily storing the information during the transferring of the information between the at least two endpoints via the established second communication path (Figure 4, switch tables).

Regarding claim 5, Rochberger teaches the first communication path is a physical communication path (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, path going through elements 16 and 18).

Regarding claim 6, Rochberger teaches the second communication path is a logical communication path (column 7 lines 12-32, SVC).

Regarding claim 7, Rochberger teaches the second communication path is at least one of a circuit switched connection and a packet switched connection (figures 1

or 2 or 3 or 10 or 11 or 12 or 15 or 16, path going through elements 24 and 26 having SVC over ATM).

Regarding claim 8, Rochberger teaches the at least two endpoints comprises a first source endpoint and at least a first destination endpoint (column 10, lines 14-20, the principle of the method of the first embodiment is that two call paths are set up between the source and destination nodes: a primary call path and a redundant, i.e., secondary, call path. The two call paths are, however, associated with each other in the switching tables of the two end nodes, i.e., the source and destination nodes).

Regarding claim 10, Rochberger teaches the second and the first communication path comprises at least one of a wired (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, path going through elements 24 and 26 having ATM) and a wireless communication link.

Regarding claims 11, 12-18 and 20, Rochberger teaches a computer-readable medium having stored thereon, a computer program having at least one code section (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, elements 14 and 20 having associated hardware and software) and in view of Schwengler and DeKoning disclose all the limitations as discussed in the rejection of claims 1, 2, 4-8 and 10 and are therefore apparatus claims 11, 12-18 and 20 are rejected using the same rationales.

Regarding claims 21, 22, 24-28 and 30, Rochberger teaches a system comprising one processor executing a provisioning protocol (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, elements 14 and 20 having associated hardware and software related to provisioning protocol) and in view of Schwengler and DeKoning disclose all

the limitations as discussed in the rejection of claims 1, 2, 4-8 and 10 and are therefore apparatus claims 21, 22, 24-28 and 30 are rejected using the same rationales.

Regarding claim 31 Rochberger teaches at least one processor comprises one or more of a media processing system processor, a media management system processor, a computer processor (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, elements 14 and 20 having associated processor hardware), a media exchange software processor and a media peripheral processor.

4. Claims 3, 9, 13, 19, 23 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rochberger, Schwengler and DeKoning in view of Doi et al. (US6970919, hereinafter Doi).

In regards to claim 3, Rochberger, Schwengler and DeKoning teach all the limitations of claim 1 above.

Rochberger, Schwengler and DeKoning do not explicitly teach provisioned communication functions further comprises at least one or more of operations administration maintenance and provisioning (OAM&P), roaming, user authentication, media transfer, caching, storage management and addressing management.

Doi in the same or similar field of endeavor teaches provisioned communication functions further comprises at least one of operations administration maintenance and provisioning (OAM&P), roaming, user authentication (see column 12 line 44-49), media transfer(see column 4 line 29-34), caching, storage management (see column 4 line 5) and addressing management (see column line 24-33).



It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate in Rochberger, Schwengler and DeKoning's system/method the steps of provisioned communication functions further comprises at least one or more of operations administration maintenance and provisioning (OAM&P), roaming, user authentication, media transfer, caching, storage management and addressing management as suggested by Doi. The motivation is that provisioning diverse usage of a communication link makes the network robust and flexible. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

In regards to claim 9, Rochberger, Schwengler and DeKoning do not explicitly teach the at least two endpoints is at least one of media processing systems, media peripherals, personal computers, third (3rd) party media providers, third (3rd) party storage vendors and channel information servers.

Doi in the same or similar field of endeavor teaches the at least two endpoints is at least one of media processing systems, media peripherals (see column 5 line 3), personal computers, third (3rd) party media providers (see column 4 line 5-6 and figure 1 box 3- 1, 3-2, and 3-3), third (3rd) party storage vendors (see figure 1 box 2) and channel information servers (see figure 2 box 13 VOD service).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate in Rochberger, Schwengler and DeKoning's system/method the steps of at least two endpoints is at least one of media processing systems, media peripherals, personal computers, third (3rd) party media providers, third

(3rd) party storage vendors and channel information servers as suggested by Doi. The motivation is that provisioning diverse type of devices for usage of a broadband communication link makes the network robust and flexible for the end users. Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

Regarding claims 13 and 19, Rochberger teaches a computer-readable medium having stored thereon, a computer program having at least one code section (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, elements 14 and 20 having associated hardware and software) and disclose all the limitations as discussed in the rejection of claims 3 and 9 and are therefore apparatus claims 13 and 19 are rejected using the same rationales.

Regarding claims 23 and 29, Rochberger teaches a system comprising one processor executing a provisioning protocol (figures 1 or 2 or 3 or 10 or 11 or 12 or 15 or 16, elements 14 and 20 having associated hardware and software related to provisioning protocol) and disclose all the limitations as discussed in the rejection of claims 3 and 9 and are therefore apparatus claims 23 and 29 are rejected using the same rationales.

### ***Response to Arguments***

5. Applicant's arguments see pages 10-21 of the Remarks section, filed 4/1/2010, with respect to the rejections of the claims have been fully considered and are not persuasive.

6. Applicant argues (see pages 15-16) that Putting aside for the moment whether or not this is an accurate assessment of Schwengler, the Examiner has failed to provide "articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness" in the detailed manner described in KSR. The Examiner fails to explain any plausible motivation for making this combination. The Examiner also makes the unsupported allegation that "by using different communication types for primary and backup paths, network can be made to be more reliable in case of failure in the primary path." (See OA, p. 3.). The Examiner provides no explanation of how Rochberger's network would allegedly be enhanced and made more reliable. Notably, the Examiner has ignored the fact that Rochberger relates to Asynchronous Transfer Mode (ATM) networks, which are based on wired data transmissions. Why would a person of ordinary skill in the art incorporate Schwengler's alleged teaching ("primary and secondary path being different communication type") into Rochberger's wired ATM system if, Schwengler addresses a problem with wireless transmissions in a Local Multipoint Distribution System (LMDS)? The answer is that a person of ordinary skill in the art simply would not make this combination. There would be no need to use primary and secondary paths of different communication type to remedy "large obstruction" problems in line of site transmissions, since such problems would not exist (and are not an issue) with ATM wired transmissions disclosed by Rochberger (the Applicant has addressed the additional deficiency of Schwengler herein below, namely, Schwengler's first and second communication paths do not use different communication protocols and they are not of different communication types).

7. However, Examiner respectfully disagrees with Applicant's assertion. Firstly, in response to applicant's argument, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Secondly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate in Rochberger's system/method the steps of primary and secondary path being different communication type as suggested by Schwengler. The motivation is that (as suggested by Schwengler, column 4 lines 42-47) by using different communication types for primary and backup paths, network can be made to be more reliable in case of failure in the primary path; thus overcome the problems associated with primary path failure by utilizing the appropriate different communication path to get around the fault.

Examiner submits that the following are some rationales which may be used when formulating a 103 rejection:

(1) Combining prior art elements according to known methods to yield predictable results.

(2) Simple substitution of one known element for another to obtain predictable results.

(3) Use of known techniques to improve similar devices (methods or products) in the same way.

(4) Applying a known technique to a known device (method or product) ready for improvement to yield predictable results.

(5) "Obvious to try" - choosing from a finite number of identified, predictable solutions.

(6) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces/market place incentives if the variations are predictable to one of ordinary skill in the art.

(7) The TSM test. (Although the Supreme Court cautioned against an overly rigid application of TSM, it also recognized that TSM was one of a number of valid rationales that could be used to determine obviousness)

Examiner respectfully submits that, Examiner has indeed met "articulated reasoning with some rational underpinnings to support the legal conclusion of obviousness" for the reasons as follows:

1) Examiner has shown, the combination based on TSM test -The motivation is that (as suggested by Schwengler, column 4 lines 42-47) by using different communication types for primary and backup paths, network can be made to be more reliable in case of failure in the primary path; thus overcome the problems associated with primary path failure by utilizing the appropriate different communication path to get around the fault.

2) Use of known techniques (primary and secondary path being different communication type) to improve (network can be made to be more reliable in case of failure in the primary path; thus overcome the problems associated with primary path

failure by utilizing the appropriate different communication path to get around the fault) similar devices (methods or products of Rochberger and Schwengler prior art) in the same way.

3) Known work (primary and secondary path being different communication type) in one field of endeavor (Schwengler prior art) may prompt variations of it for use in either the same field or a different one (Rochberger prior art) based on design incentives (network can be made to be more reliable in case of failure in the primary path; thus overcome the problems associated with primary path failure by utilizing the appropriate different communication path to get around the fault) or other market forces/market place incentives if the variations are predictable (network can be made to be more reliable in case of failure) to one of ordinary skill in the art. Furthermore, in response to applicant's argument that there is simply no rational basis for combining the references, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

8. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does

not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicant argues that even if the references are combined in the manner suggested by the Examiner, independent claims 1, 11, and 21 are still patentable because the resulting combination does not include at least the following limitation of claim 1: "wherein said first and second communication paths use different communication protocols and are of different communication types, and wherein both of said first and second communication paths are established through the same plurality of network nodes," as recited by the Applicant in independent claim 1.

However, Examiner respectfully disagrees with Applicant's assertion. The cited prior art in combination do indeed teach the cited limitations. Specifically, Rochberger does not explicitly teach, primary and secondary path use different communication protocol and are being different communication type. Schwengler in the same or similar field of endeavor teaches primary and secondary path use different communication protocol and are being different communication type (Abstract, column 3 lines 53-55, the redundant or secondary communication path may be a different line of sight path to the same or a different transmitter, or may be a lower frequency communication path). It is to be appreciated that this embodiment of the present invention, utilizing a primary and a secondary transmitter, allows a lower frequency non-line of sight link to be used as a backup for a primary communication path that does require line of sight). In regards to line of sight, Schwengler teaches Local Multipoint Distribution System (LMDS) in an existing architecture involves broadcasting microwave signals at

frequencies at or above 28 gigahertz to small receiver dishes, typically installed on the top of apartment buildings. At that high frequency, line of sight is required for maximum signal performance. The received LMDS signal may then be distributed through the building. In general, existing LMDS systems use the LMDS receiver to serve one customer or subscriber, with each different customer or subscriber having a single dedicated LMDS receiver. In regards to non-line of sight, Schwengler teaches it is to be appreciated that this embodiment of the present invention, utilizing a primary and a secondary transmitter, allows a lower frequency non-line of sight link to be used as a backup for a primary communication path that does require line of sight. Therefore, line-of-sight like microwave or infrared links are higher frequency protocol at 12 Gigahertz, while non-line-of-sight are lower frequency protocol at below 6 Megahertz. Rochberger and Schwengler do not explicitly teach both of a first and a second communication paths are established through same plurality of network nodes. DeKoning in the similar field of endeavor related to data communication teaches both of a first and a second communication paths are established through same plurality of network nodes (Figure 3, column 11 lines 4-21). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Further, in response to applicant's argument, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the



test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

9. Applicant argues that Schwengler only relates to transmissions in the Microwave band of the spectrum (e.g., frequencies greater than 12 GHz and going up to 30 GHz, which is the typical frequency range for LMDS type communications using line of site transmission). (See Schwengler, col. 3, lines 11-17). In this regard, even though Schwengler discloses using different communication paths or different frequencies for a given communication path, the fact remains that Schwengler uses only one type of communication path, e.g., in the Microwave band. Therefore, Schwengler does not overcome the deficiencies of Rochberger.

10. However, Examiner respectfully disagrees with Applicant's assertion. The current claim language is broad and in view of the broadest reasonable interpretation of the claim language Schwengler does indeed teach the cited limitations. Specifically, Schwengler in the same or similar field of endeavor teaches primary and secondary path being different communication type (Abstract, column 3 lines 53-55, the redundant or secondary communication path may be a different line of sight path to the same or a different transmitter, or may be a lower frequency communication path. It is to be appreciated that this embodiment of the present invention, utilizing a primary and a secondary transmitter, allows a lower frequency non-line of sight link to be used as a backup for a primary communication path that does require line of sight).

11. Applicant argues that even though DeKoning discloses redundant connections (between RDACs 118.1, 118.2 and disk arrays 108, 108.1), such connections are just duplicative connections of the same type (FC-AL) as the main connections.

12. However, Examiner respectfully disagrees with Applicant's assertion. Schwengler teaches primary and secondary paths being different communication type, while DeKoning teaches first and a second communication paths are established through same plurality of network nodes. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Therefore, the claims stand rejected.

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SALMAN AHMED whose telephone number is (571)272-8307. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571)272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Salman Ahmed/

Primary Examiner, Art Unit 2476